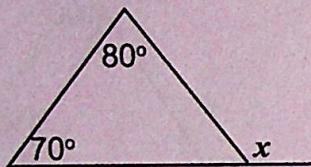


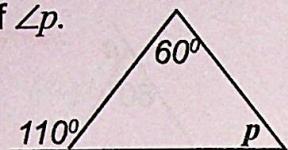


## Finding the interior and exterior angles of triangles

**Example 1**Find the value of  $\angle x$ .

$$x = 80^\circ + 70^\circ$$

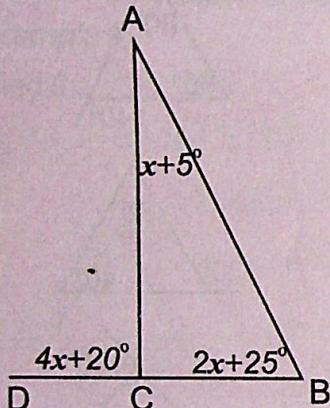
$$x = 150^\circ$$

**Example 2**Find the size of  $\angle p$ .

$$\begin{aligned} p + 60^\circ &= 110^\circ \\ p + 60^\circ - 60^\circ &= 110^\circ - 60^\circ \\ p &= 50^\circ \end{aligned}$$

**Example 3**

From the figure given,

i) Find the value of  $x$ .ii) Find the size  $\angle ACD$ .

$$4x + 20^\circ = x + 5^\circ + 2x + 25^\circ$$

$$4x + 20^\circ = 3x + 30^\circ$$

$$4x + 20^\circ - 20^\circ = 3x + 30^\circ - 20^\circ$$

$$4x = 3x + 10^\circ$$

$$4x - 3x = 3x - 3x + 10^\circ$$

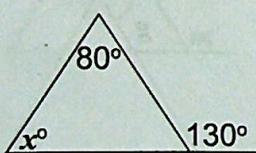
$$x = 10^\circ$$

The value of  $x$  is  $10^\circ$ 

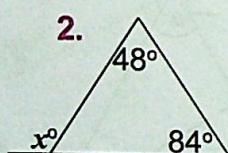
$$\begin{aligned} \text{The size } \angle ACD &= 4x + 20^\circ \\ &= (4 \times 10^\circ) + 20^\circ \\ &= 40^\circ + 20^\circ \\ &= 60^\circ \end{aligned}$$

**Exercise 12:4** Find the value of  $x$ .

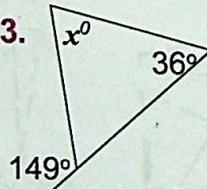
1.



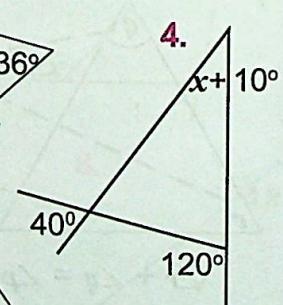
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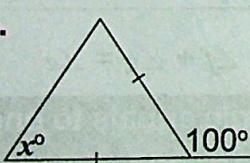
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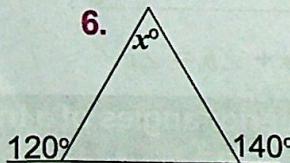
4.



5.



6.



7.

